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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,016

08/21/2006

Tetsuya Matsuda

IRD-0018

6725

23353 7590 06/24/2009
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EXAMINER

RIGGS II, LARRY D

ART UNIT

PAPER NUMBER

1631

MAIL DATE

DELIVERY MODE

06/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,016	Applicant(s) MATSUDA ET AL.	
	Examiner LARRY D. RIGGS II	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>21 August 2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Applicant's preliminary amendments filed 21 August 2006 are acknowledged and entered.

Drawings

The amended drawings filed on 21 August 2006 are accepted.

Information Disclosure Statement

The information disclosure statement filed 21 August 2006 is acknowledged. A signed copy of the corresponding 1449 form has been included with this Office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 15 recite the limitation "the operation sequence" in line 23, respectively. There is insufficient antecedent basis for this limitation in the claim because the limitation "the operation sequence" implies a program sequence that the device is follows, is being stored in the simulation scenario information storage unit. However, there is no recitation of any operation sequence previously provided or implemented previously in the instant claim.

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Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 8-14 are drawn to a program or software, per se, without being on a computer readable medium, which is considered as nonfunctional descriptive material, and thus nonstatutory. See nonfunctional descriptive material under MPEP 2106.1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keane (US 6,381,562) in view of Rudy (US 4,862,347) and further in view of Dolidon et al. (US 5,408,623).

The instant claims are drawn to an organism simulation device and system comprising:

two or more different simulator parts that calculate the behavior of an organisms structural elements, where are elements making up the organism, such as molecules, cell organelles, tissue and organs, comprising:

- an input data reception unit,

- a calculation unit,

- an output data output unit,

- a data output unit comprising:

- an output data reception unit,

- an output unit,

a simulation controller comprising:

- a data reception unit,
- an input data transfer unit,
- an output data transfer unit.

Regarding claims 1 and 15, Keane shows an apparatus, method and program that simulates the behavior of a bio-transport system configured for a specific organ, tissue or cell model, (column 4, first paragraph; column 6, last paragraph). Keane shows a user interface, input/output components, CPU, memory containing numerous models, storage database, output display, (Column 7, lines 3-22; Column 8, lines 15-61; column 13, second paragraph; Figures 1-3). Keane shows receiving and transmitting data between components of the apparatus, (column 13, lines 19-39).

Keane does not show input data transfer unit, output data transfer unit, input data reception unit and output data reception unit.

Rudy shows an apparatus for simulating memory devices in a logic simulation machine having input/output (I/O) sources, including a simulator (simulation controller) containing an input data permutation unit (input data transfer unit), execution unit, simulation profile memory and output data permutation unit (output data transfer unit), (abstract, Figures 1 and 2).

Keane and Rudy do not show input/output data reception units.

Dolidon et al. shows a data processing system containing processors with a plurality of microprogrammed execution units connected with one another with a

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memory by way of a cache memory, (abstract; Figure 1). Dolidon et al. shows input/output units with buffers (reception units) (Figures 2 and 3).

Regarding claims 2, 6 and 7, the instant claims are wherein clauses that are intended use claims of the elements of the apparatus of claim 1. All limitations of the elements of claim 1 is addressed above.

Regarding claim 3, Keane shows an automatic input of data from experimental and diagnostic tools, (column 9, lines 23-44). It would be obvious that an input data obtaining unit would be used to automatically input data for simulation. The remaining wherein clause is merely intended use. All elements of the apparatus are met above.

Regarding claim 4, Dolidon et al. shows input/output units with buffers (reception units) (Figures 2 and 3). Dolidon et al. shows numerous buffers linked to input/output, processor, calculation units and a cache memory, (Figures 1-3) that one skilled in the art would consider to be obvious to meet the limitations of input/output data reception portions and input data retrieving portion.

Regarding claim 5, Rudy shows an input data permutation unit, a simulation profile memory and real memory within the memory simulator, (figure 2) that one skilled in the art would consider to be obvious to meet the limitations of a simulation scenario information input reception portion and simulation scenario information save portion.

Regarding claims 8-14, the instant claims are drawn to an organism simulation program that mirrors the instant apparatus claims 1-7. Keane shows a computer readable medium of instructions for enabling the system described to construct and/or execute the simulation described above, (column 7, lines 19-21). It would be obvious to

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one skilled in the art that the apparatus shown above would also provide instructions for performing the simulation.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LARRY D. RIGGS II whose telephone number is (571)270-3062. The examiner can normally be reached on Monday-Thursday, 7:30AM-5:00PM, ALT. Friday, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran can be reached on 571-272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/LDR/

Larry Riggs

Examiner, Art Unit 1631

/ERIC S. DEJONG/

Primary Examiner, Art Unit 1631